

Application/Control Number: 10/789,872  
Art Unit: 1724

Page 2

***Claim Objections***

Claims 32 and 33 are objected to because of the following informalities: Claims 32 and 33 depend on "claim 35". Claims 32 and 33 should depend on any one of previous claim. Appropriate correction is required.

***Allowable Subject Matter***

Claims 1-59 would be allowable upon corrections of the claim objections above.

The following is a statement of reasons for the indication of allowable subject matter: None of the prior arts discloses a filter matrix having all the structural elements set forth in independent claims 1, 24, 28 and 39.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/789,872  
Art Unit: 1724

Page 3

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**Minh-Chau Pham**  
Patent Examiner  
Art Unit: 1724  
April 13, 2006

FEB-24-04 01:58PM FROM-

T-208 P.13/29 F-872

12

28

- bination and mixtures thereof.
- [31] The filter matrix according to claim 28, wherein said expanded metal filter layer has a catalytic coating thereon.
- [32] The filter matrix according to claim 35, wherein said catalytic coating is a precious metal catalyst.
- [33] The filter matrix according to claim 35 wherein said catalytic coating is titanium dioxide.
- [34] The filter matrix according to claim 28, wherein said expanded metal filter layer has an electropolished surface.
- [35] The filter matrix according to claim 28, wherein said expanded metal filter layer has a non-stick coating.
- [36] The filter matrix structure as claimed in claim 28, wherein each of said expanded metal filter layers has a porosity of between 30% and 50%.
- [37] The filter matrix structure as claimed in claim 28, wherein each of said expanded metal filter layers has a porosity of between 40% and 55%.
- [38] The filter matrix structure as claimed in claim 28, wherein each of said expanded metal filter layers has a porosity of 42%.
- [39] A filter matrix substantially overlying a broiler at a selective distance therefrom for reducing volatile particulate matter and organic compounds in broiler smoke, said filter matrix comprising:  
at least one filter screen layer horizontally disposed above the broiler for arresting the broiler flame; and  
a stack of at least two expanded metal filter layers, the first of which is contiguous to said filter screen layer which is directly above the broiler, wherein each of said at least one filter screen layer is flat and has a plurality of pre-determined apertures defined therein arranged in an array for the passage of broiler smoke therethrough and wherein each of said apertures is diamond shaped;  
wherein each of said expanded metal filter layers has a plurality of pre-determined apertures defined therein arranged in an array for the passage of broiler smoke therethrough,  
wherein each of said apertures in each of said expanded metal filter layers is diamond-shaped defined by four walls which are inclined at an angle; and  
wherein each of said expanded metal filter layers has a major axis and a minor axis such that when said expanded metal filter layers are stacked, said major axis of one of said expanded metal filter layers is perpendicular to the major axis of the next adjacent expanded metal filter layer;  
whereby when the broiler smoke is passing through said filter matrix, the pathway of the broiler smoke is labyrinthine.
- [40] The filter matrix according to claim 39, wherein said four walls defining each of